#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014941

Address: 333 Burma Road **Date Inspected:** 15-Jun-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Gao Zhi Chun **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component: Tower Components** 

**Summary of Items Observed:** 

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

#### TOWER JETTY

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005988

Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component designations reviewed are as follows:

NORTH TOWER LIFT-1, GAP BETWEEN BASE PLATE AND BEARING PLATE

SKIN'B' EXTERNAL - 4 LOCATIONS

SKIN'D' EXTERNAL - 8 LOCATIONS

SKIN'D' INTERNAL - 1 LOCATION

SKIN'E' EXTERNAL – 3 LOCATIONS

SKIN'E' INTERNAL - 1 LOCATION

BAY#10

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint #4B located on Lift-5 Splice Plate Stiffener SSD1 – SPSA5 – 6. Welder is identified as 050266. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3211 - Tc - U5b - 1.

Weld joint # 2B located on Lift-5 Splice Plate Stiffener NSD1 – SPSA5 – 16. Welder is identified as 057258. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3211 - Tc - U5b - 1.

Weld joint # 41A located on Lift -5 north tower A/E corner to Grillage plate NSD1 - TL5 -4B/F. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3213 - B - U3b.

Weld joint # 2B located on Lift-5 Splice Plate Stiffener NSD1 – SPSA5 – 6. Welder is identified as 044511. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3211 - Tc - U5b - 1. (See attached photo)

Weld joint # 24B located on Lift -5 north tower A/E corner to Grillage plate NSD1 - TL5 - 4B/F. Welder is identified as 052930. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3213 - B - U3b.

### **BAY#11**

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 1A located on Lift-5 Splice Plate Stiffener ESD1 – SPSA5 – 20. Welder is identified as 040611. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3211 - Tc - U5b - 1.

Weld joint # 1B located on Lift-5 Splice Plate Stiffener WSD1 – SPSA5 – 2. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3211 - Tc - U5b - 1.

Weld joint # 3B located on Lift-5 Splice Plate Stiffener ESD1 – SPSA5 – 7. Welder is identified as 046709. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3211 - Tc - U5b - 1.

### MEASUREMENTS ON TOWER STRUTS

This QA Inspector carried out the measurements on Tower Struts to check the length, flange to flange distance, stiffener to stiffener distance, bolt hole to edge of the strut distance and 1:1 fillet weld termination & 10mm minimum clearance from fillet to CJP at stiffeners. Measurements were recorded on the data sheet and submitted to the assigned task leader. The identified component designations reviewed are as follows **TOWER STRUTS** 

# WELDING INSPECTION REPORT

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- 1. ED1 A6001 8
- 2. ED1 A6003 2
- 3. ED1 A6003 6
- 4. ND1 A6002 1
- 5. SD1 A6002 17
- 6. ND1 A6002 12
- 7. ND1 A6002 7
- 8. ND1 A6002 9
- 9. ND1 A6002 14
- 10. ND1 A6002 13
- 11. ND1 A6002 2
- 12. ND1 A6002 11

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## **Summary of Conversations:**

No Relevant Conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer